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ABSTRACT

Students individually need to experience success in reading, be it a systematic approach in phonics or in whole language procedures. Quality action research, conducted within the local school/school system, needs to be conducted to notice which of these two procedures of reading instruction best meets student needs. Each student needs to achieve optimally in reading. Phonics instruction in a systematic approach has many advocates. A separate time each day is provided for the teaching of primary grade phonics. Toward the other end of the continuum, phonics is taught as needed within the story content read. The pros and cons of each approach are evaluated in this paper. (Contains 11 references.) (Author/NKA)

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# Assessing Student Achievement in Phonics.

by Marlow Ediger

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CS 014 243

ASSESSING STUDENT ACHIEVEMENT IN PHONICS

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Abstract

Students individually need to experience success in reading, be it in a systematic approach in phonics or in whole language procedures. Quality research needs to be performed to notice which of these two procedures of reading instruction best meets student needs. Each student needs to achieve optimally in reading.

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Phonics instruction in a systematic approach has its many advocates. Thus, separate time each day is provided for the teaching of primary grade phonics. Toward the other end of the continuum, phonics is taught as needed within story content read. The pros and cons of each approach will be evaluated.

## Systematic Phonics Instruction

Definite objectives, learning opportunities, and evaluation procedures need to be in the offing. Once objectives have been stated, then a basal textbook/workbook needs to be chosen which matches with the objectives.

Systematic phonics will vary in degrees from teacher to teacher as to how much to stress. The procedure chosen may be pure phonics or a considerable amount of phonics within the primary grade systematic reading program. The latter might emphasize much phonics taught within content to be read. (1)

Achievement may be assessed by noticing if pupils individually can

1. Associate sounds with symbols.
2. Identify and pronounce vital syllables.
3. Transfer what has been learned in phonics to new situations in reading.

Teacher attitudes toward teaching phonics may be appraised on a five point Likert scale. The following are examples for teachers to respond to:

1. Students should learn phonics separate from the actual reading of ideas.
2. Students should be assisted, only as needed, to use phonics in reading content.
3. Students should learn phonics through repeated reading of ideas. (2)

Item #3 above is advocated by their favoring whole language approaches in reading instruction.

## Whole Language Procedures in Reading

Whole language advocates believe in early primary in early primary grade students reading ideas using approaches such as the following:

1. Individualized reading whereby the learner chooses which library books to read sequentially. Library books are used in reading, not basal readers. Students choose personal books to read based on purpose or interest. After completing the reading of a library book, the individual student may have a conference with the teacher. Within the conference, content read by the student may be discussed with the teacher to appraise comprehension. Also, the learner may choose a selection to read aloud from the library book for the teacher to notice word recognition fluency. Future recorded notes by the teacher of the conference might be compared with what happened previously to notice student achievement in reading. Phonics may be taught as needed in the conference. (3)

2. The Big Book philosophy of reading instruction whereby the teacher teaches from a Big Book clearly visible to all participating readers of content. After discussing the related illustration to develop background information, the teacher reads the first page orally to the participating students. Learners follow the print script as the teacher points to sequential words and phrases. Next, students read aloud with the teacher the same selection which the latter completed. The selection may be reread as often as desired. Many times, students like to reread these ideas and content. With rereading, students master individual words and phrases in context. Each page in the Big Book may be read together using the above named approach. Here, separate time is not given to phonics instruction. Rather, with rereading, students may master phonetic principles. (4)

3. The experience chart philosophy of reading instruction also emphasizes the whole language approach. Thus, the teachers may arrange objects on an interest center for students to discuss. The discussion of objects provides background information for early primary grade students. Learners should then be ready to provide ideas for an experience chart. The teacher records these ideas on a large sheet of butcher paper. The paper may be taped to the chalkboard. The teacher also might wish to use the word processor to show students that talk can be recorded in print discourses. The ideas recorded may be discussed in depth and then read aloud by students. The teacher points to words and phrases as students read orally. Phonics is not taught per se as the content is reread. But, phonics generalizations may be made by learners, such as noting aloud that a word in the chart begins like another nearby word. Or, two words are pinpointed on the chart which end alike. These are examples of possibilities in phonics learning. However, ideas do come first in developing and reading from the experience chart. Phonics may/ may not be stressed depending upon the interests of students. By rereading the experience chart content, students glean word recognition and comprehension skills (5).

Each of the three whole language approaches – namely individualized reading, the Big Book approach, and the experience chart – stress holism, not isolated parts, such as phonics, in the teaching of reading.

## Conducting Action Research

Action research being utilitarian in nature, conducted within the local school/school system, is the best kind of research conducted, if extrinsic variables are controlled. In this case, the problem to be investigated involves systematic phonics versus holism as to the best method of reading instruction. How then should the research be conducted? The research involves an experimental study. The following tenets need to be followed:

1. The independent variable such as whole language approaches in reading instruction cause the dependent variable which is improvement in students' reading abilities.

2. To show improved reading abilities, a .05 level of significance is generally used as an hypothesis. This means that 95 chances out of 100, for example, the results between the experimental group (the whole language reading procedure group) out performed the control group (students engaged in the traditional approach in the teaching of reading). Thus, the differences in achievement were great enough to have this occur by chance five chances out of 100. (6)

3. A pretest is usually given toward the beginning of the school year to indicate the base line of achievement for the experimental group and the control group. The two groups – those taught using whole language reading instruction – and the control group should start out at the same point of achievement. Otherwise, if one group starts out higher in achievement in the research study, they will tend to end up higher in the post-test results.

4. The post-test then is given to both groups toward the end of the school year to notice gains or lack thereof from pretest to post-test. What if, in pretest results, one group is greatly different in achievement compared to the other? Then, a statistical procedure known as analysis of covariance should be used to equate the experimental and the control group. From the pretest with both groups equated to the post-test should indicate under which methods of teaching reading – whole language or traditional procedures – do students achieve more optimally such as at the .05 level of significance. (7)

5. There can be considerable debate as to which measurement instrument to use in the pretest and the post-test. No measurement instrument will be perfect. Those teachers and principals involved in the action research project need to study and analyze which measurement instrument to use. Generally, a standardized test is used, rather than a criterion referenced test (CRT). In the manual of the standardized test being considered, data will be

provided on validity and reliability. Basically validity pertains to the following: Does the test truly measure what it says it does? In the action research study, does the test actually measure student achievement pertaining to whole language and traditional procedures in reading instruction. Reliability in testing answers the question: Does the test measure consistently? Thus, a good test be it test-retest, split half, and or alternative forms of the test should provide same/similar results for a student. Thus, if on a reading test, the student measures on the 60th percentile the first time the test is given and 10th percentile on the second testing, it tells us nothing about the student's achievement due to a lack of consistency of results. The author recommends strongly that action researchers consult a reputable methods of research or measurement of student achievement university textbook to secure needed information on doing research. It is expensive and time consuming to do good research.

Action research should involve doing longitudinal studies. Thus, a study is carried on for a period of years. Why? The halo effect of the newness of an innovation, such as the Big Book approach in reading instruction, wears off. Very often the initial gains experienced by a new procedure of teaching does not remain as the years go by, for the same group of students. (8)

## Why Should Teachers and Administrators Conduct Research?

Doing research gets one actively involved in the curriculum. When reading research to do a Review of the Literature to secure background information for one's own study, the reader is increasingly able to

1. Sort out quality studies from those carelessly done. Assessment is then in evidence.
2. Learn to cite those research studies which relate directly to one's own.
3. Use statistical terms intelligently such as levels of significance, correlations, graphs, tables, standard error of measurement, and standard of error of the mean, among others.
4. Determine different statistical procedures in dealing with student test results from either the experimental or control group including analysis of covariance, analysis of variance, and T tests.
5. Communicate to others the meaning of student numerical results of achievement including percentiles, grade equivalents, stanines, and standard deviations, among others.
6. Assess extraneous variables in a research study that might provide rival plausible hypotheses, other than the independent variable (the new approach in teaching reading) affecting the dependent variable (reading achievement of students). The more rival hypotheses there are, the weaker the research study. Thus, the treatment alone, ideally, should affect the outcome, such as the independent

variable affecting the dependent variable.

7. Evaluate criticisms of the public schools and student achievement such as higher income areas have considerably higher student test scores as compared to lower socioeconomic areas. Critics may fault schools for having these gaps in achievement between rich and poor.
8. Appraise validity in using standardized tests to measure student achievement as well as state mandated tests which may not be aligned with their "high standards," or objectives.
9. Realize weaknesses in using a single test score in an exit test to determine if a student does/does not receive a high school diploma.
10. Study multiple measures of noting student achievement including portfolios. (9)

The testing and measurement movement is strong which means that teachers/administrators need to study and use numerical information wisely from student achievement. For example, no test is perfect and then contains a standard error of measurement, due to deficits in reliability. Lower reliability means a test does not measure consistently such as test/retest, alternative forms, or split half reliability. Thus, if the absolute cut off score for a high school senior is 80 items answered correctly on the exit test, a student may fail if he/she scores 78 or 79 items correct. Then, if the standard error of measurement is four points, the cutoff score of 80 could vary from 80-4=76 and 80+4=84. This means that the cut off score of 80 could vary from 76 to 84 due to errors in test construction. Many problems exist pertaining to exit tests and other facets of education when using numerical results. (10)

Predicting su:cess of a student presently, in school, of what the future holds for this individual would be a more ideal way of teaching rather than basing it on a single test score such as an exit exam. Flimsy evidence is involved when an exit test determines one's future. If a student does not receive a meaningful high school diploma, he/she is doomed unless a GED can be passed as an alternative.

Perhaps other considerations should also be given to those who fail an exit test such as

1. Daily classroom work and its quality.
2. Habits and attitudes of a learner. This might be very important for those who are mentally retarded or emotionally disturbed.
3. The attendance record of the student. Absences, unless for health reasons, and tardiness are negative behaviors.
4. The socio-economic level of the student. Poor socio-economic level schools have much lower

achievement on tests as compared to those in favorable economic areas.

5. The improvement rate over past performance of any student is salient.

6. Intelligences possessed by a student in addition to verbal intelligence. Thus a students may achieve well in non-academic areas of the curriculum.

7. Learning style of the student whether he/she likes to work individually (intrapersonally) or achieves more optimally in a group (interpersonally). Test taking emphasizes intrapersonal intelligence.

8. Development of portfolios which contains a purposeful selection of student products and processes involving everyday classroom work. Relevant items need to be in the portfolio so that a student's achievement may be assessed. Written work, art products, construction items, cassettes of oral reading, and a video disk containing committee participations, among other items, may be a part of the portfolio.

9. Use of rubrics to assess student work in the classroom.

10. Student teacher appraisal of ongoing experiences in reading. Appropriate standards need to be used to appraise activities and experiences in reading. (11)

The curriculum needs to have the best of objectives for students to achieve in reading. Learning opportunities need to be aligned with the chosen objectives. Assessment procedures need to be used to ascertain if the objectives have/have not been achieved.

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